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April 1, 2010

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **Notice of Oral *Ex Parte* Presentation**
ET Docket Nos. 04-186 & 02-380; GN Docket No. 09-51;
WT Docket Nos. 08-166 & 08-167 and ET Docket No. 10-24

Dear Ms. Dortch:

On March 31, 2010, John Scrivner of Mt. Vernon.net, Inc., D. Ryan Spott of Iron Goat Networks, LLC, Alex Phillips of highspeedLINK, LLC, Jack Unger of Ask-Wi.com and undersigned counsel, all representing the Wireless Internet Service Providers Association ("WISPA"), met with Julius Knapp, Alan Stilwell, Bruce Romano, Hugh Van Tuyl, Karen Ansari and Rashmi Doshi (by teleconference) of the Commission's Office of Engineering and Technology to discuss issues related to the above-referenced proceedings.

WISPA representatives distributed and discussed the attached presentation and emphasized the need for improved TV white space rules to enhance the ability of consumers to gain affordable access to fixed wireless broadband services. WISPA noted that, in many cases, wireless Internet service providers ("WISPs") may offer the only means by which consumers can obtain broadband connections, and that existing unlicensed spectrum suffers from congestion, obstructions and inferior propagation characteristics that bar coverage to areas where consumers and businesses are located.

WISPA representatives discussed their concerns about the Commission's spectrum sensing rules. In particular, WISPA explained that sensing was unproven and unreliable, and would add unnecessary costs to fixed wireless broadband deployments. WISPA also emphasized the problems inherent with distributed sensing requirements that could force networks to cease transmitting – a result that could interrupt public safety communications on TV white space networks.

WISPA also reiterated its request to have greater flexibility in deploying white space networks in rural areas through higher power limits, higher transmit antennas and lower CPE heights. WISPA mentioned that such flexibility could be incorporated into

the Commission's rules via distance separation criteria that protected incumbent contours at current levels such that the potential for harmful interference would not increase.

In discussing its proposal to adopt "licensed lite" procedures for fixed TVBDs, WISPA stated that the Commission would need to make only two modest changes to its rules. Both rule changes would conform the TVBD rules to those applicable to the 3650 MHz Service. First, the Commission should require non-exclusive, nationwide licensing for fixed white space operations. Second, the Commission should require fixed white space providers to search a private geolocation database to determine the presence of other white space networks in the area and require "good faith" private coordination. These rules would provide structure to the marketplace, mitigate interference among white space providers, reduce Commission adjudication of interference disputes and increase the ability of providers to make and attract investment. WISPA added that the candidate database administrators would be able to identify in the database frequencies or areas that should be avoided.

WISPA discussed its proposal to designate two channels in each area for non-exclusive use by unlicensed wireless microphones. WISPA expressed its concern that the expansion of Part 74 eligibility to include additional classes of licensed users, coupled with licensed use of 36 MHz of spectrum for point-to-point backhaul and "repacking" of the TV broadcast spectrum, could greatly diminish the amount of TV white space spectrum available for fixed TVBD use, thereby undermining the desire and ability of WISPs to deploy services on white space spectrum.

WISPA also asked the Commission to act expeditiously to resolve the pending petitions for reconsideration in the TV white spaces proceeding so that equipment can be developed, certified and deployed in the near future.

Pursuant to Section 1.1206 of the Commission's Rules, this notice is being filed via ECFS in the above-referenced proceedings. Please direct any questions regarding this notice to the undersigned.

Respectfully submitted,

Stephen E. Coran

Enclosure

cc (via email): Julius Knapp
Alan Stilwell
Bruce Romano
Hugh Van Tuyl
Karen Ansari
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TV White Spaces

March 31, 2010

Why WISPs Need Better Rules

- Consumers, especially those in rural, Tribal, unserved and underserved areas, need access to sub-1 GHz spectrum to gain affordable access to spectrum free from obstructions and congestion
  - TVWS propagation characteristics overcome most outdoor obstructions
- Some TVWS rules impose unnecessary costs, create deployment burdens and limit deployment flexibility with no countervailing benefits
  - WISPs may elect to not deploy
  - Manufacturers may elect to build equipment
- Better rules will promote investment and innovation
- The time to act is *now*

Eliminate Spectrum Sensing

- "Nascent" omni-directional sensing is unproven, unreliable and unnecessary to protect incumbents, cable head-ends and licensed wireless microphones
  - Geolocation database already protects them and is less restrictive
  - Sensing adds cost to equipment
- Under distributed sensing rules, ONE *unlicensed* wireless microphone anywhere in the region could force an entire WISP network to undergo needless, channel-switching service interruptions or to go down completely within two seconds
  - Substitute spectrum may not be available
  - Different channels have different propagation characteristics
  - Shutting down wide-area TVBD network would adversely affect public safety and lifeline services
- Sensing represents a grave security threat (denial of service attack) to all fixed TVBD networks

Allow Increased Power

- Increase maximum power output to 20 watts transmitter power in rural areas to make wide-area coverage practical and reliable
  - Will promote rapid, economical and efficient broadband deployment to consumers without access
  - Will allow reasonable return on investment even at the lowest population densities
- Incumbents will still be protected through distance separation standards

Allow Higher Base Station Antenna Heights

- Increase the maximum allowable base station antenna height from 30 meters to 100 meters
  - Service will be deployed more rapidly to reach rural, unserved customers
  - Will allow reasonable return on investment even at the lowest population densities
- Incumbents will still be protected through distance separation standards

Allow Lower CPE Antenna Heights

- By removing sensing requirements, there is no need to mandate that all CPE antennas be mounted **at least 30 feet** (10 meters) above ground
- Eliminating or lowering the mandated minimum 30-foot CPE antenna height will:
  - Improve safety
  - Reduce customer cost (~$400 additional per location)
  - Improve aesthetics
  - Enable installation flexibility

Adopt "Licensed Lite" Requirements for Fixed TVBDs

- "Licensed lite" is a *natural progression* of licensing schemes, incorporating many of the advantages of unlicensed spectrum without many of the disadvantages
- Model the fixed TVBD operating rules on the 3650-3700 MHz Service "licensed lite" rules by requiring each fixed TVBD operator to:
  - Review the database to determine which channels are not in use by another fixed TVBD operator, and then
  - Choose an unused and available channel
- "Good faith" interference coordination is good for the industry and good for consumers, and will promote investment
- TVWS database providers can identify clear channels for fixed wireless broadband

Adopt WISPA Proposal for Unlicensed Wireless Mics

- Preemptive use of TVWS by wireless mics is the **number one** threat to reliable service
  - Forcing random and unpredictable WISP channel changes caused by ONE unlicensed wireless mic is a recipe for marketplace disaster
- Two channels in each market should be designated for *non-exclusive* use by Part 15 unlicensed wireless mics
  - Promotes stability for both WISPs and wireless mic users
  - Promotes spectral efficiency
    - The microphone channels can be 1st adjacent channels
  - No expansion of Part 74 eligibility

Additional Points

- Multiple geolocation database vendors should be authorized to encourage competition and innovation
- WISPA is concerned that TVWS spectrum "repacking" will result in the loss of vitally needed TVWS spectrum

Reject Proposal for Licensed Backhaul

- FiberTower Group proposal for 36 MHz of very high-power *licensed* backhaul denies everyone access to needed spectrum
  - Interference outside and beyond paths
  - WISPA proposals for higher power and higher base station antennas will accommodate backhaul AND WISP operations in a more reasonable way

The time to act is *now*